

ABSTRACT OF THE DISCLOSURE

An improved user data protocol involves a multi-addressing capability that allows a user at a source node to address a single message to many users at respective destination nodes within a communication network. The multi-address messages that are provided to the network are inserted once at the source node, and messages routed between network nodes going to the same next node travel once across each interconnecting communication channel, thereby minimizing the communication bandwidth consumed.

1. A multi-addressing communication network comprising a source node and a plurality of destination nodes, wherein the source node is configured to receive a single message and to route the message to the plurality of destination nodes, and wherein the plurality of destination nodes are configured to receive the message and to route the message to the source node.